

NOVEL GLUTAMIC ACID-PRODUCING CORYNEFORM BACTERIA AND PRODUCTION OF L-GLUTAMIC ACID USING SAID BACTERIA

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Abstract of JP63214189

PURPOSE:To industrially obtain L-glutamic acid useful as seasonings in large amounts, by cultivating a glutamic acid-producing coryneform bacterium holding a recombinant DNA containing a specific enzyme gene in a culture medium. **CONSTITUTION:**DNA obtained by extracting microbial cells of a glutamic acid (G1)-producing coryneform bacterium is subjected to treatment with a restriction enzyme to provide DNA fragments of two or more enzyme genes containing a G1 acid dehydrogenase (GDH) gene and isocitric acid dehydrogenase (ICDH) gene participating in biosynthetic routes of G1 acid. A recombinant DNA simultaneously holding the resultant GDH gene and ICDH gene is subsequently prepared and transfected into a G1 acid-producing coryneform bacterium to afford a multiple enriched strain (*Corynebacterium melassecola* 801), which is then aerobically cultivated in a culture medium containing glucose at pH6-8 and 25-38 deg.C for 20-50hr to produce the aimed L-glutamic acid in the culture medium.

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